REPORT

ON THE

HORTICULTURAL GARDENS, LUCKNOW,

FOR THE YEAR ENDING 31ST MARCH, 1885.

ALLAHABAD:

NORTH-WESTERN PROVINCES AND OUDH GOVERNMENT PRESS.

1885.

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From

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Offg. Director, Department of Agriculture and Commerce,

North-Western Provinces and Oudh,

To

The CHIEF SECRETARY to GOVERNMENT,

North-Western Provinces and Oudh.

Dated Cawnpore, the 20th June, 1885.

Sir,

I have the honor to submit herewith the Annual Report on the Horticultural Gardens, Lucknow, for the year ending 31st March, 1885.

2. A calamity befell the gardens in the occurrence on the 10th of January, 1885, of a hail-storm of unprecedented violence, causing immense damage to the gardens generally, and in particular to the fruit trees and flower beds. The effects of this untoward incident will be particularly felt in the coming year in a lessened crop of fruit.

3. Notwithstanding all losses, the income of the year fell short of the estimate of Rs. 10,000 by Rs. 22-2-4 only, but was less than the actual receipts of the previous year by Rs. 844-15-9; Rs. 584-15-0 represents a reduction in the garden income by loss on trees, &c., sold at reduced rates to public institutions. Expenditure amounted to Rs. 13,216-0-10 or Rs. 783-15-2 less than the estimate.

4. *Fruit culture.*—There appears, on the whole, to have been a fair crop of fruit. A number of English varieties of vine and an English variety of fig fruited in the gardens for the first time this year. It is expected that when thoroughly acclimatised these varieties will prove superior to those hitherto cultivated.

Considerable advance has been made in the knowledge and cultivation of the Arabian date palm, and it is hoped to overcome the difficulty incident to the late ripening of the fruit by observation, selection, and hybridising with the native variety.

The demands on the garden for fruit trees, especially of the orange tribe, has been in excess of the supply, and the area for nursery work has therefore been considerably enlarged.

5. *Vegetable and farm culture.*—It was in this province that the effects of the hail-storm were, perhaps, most severely felt, all the vegetable crops being much injured. The experiments with musk-melon and white Belgian carrot were thus checked. On the other hand, American table corns have succeeded better than in the previous year, and further success has been achieved with Dwarf French and Polo beans and "Queen" onions.

Of the cottons, the China and Arabian seed of Nankin cotton failed here as elsewhere. The cross obtained between New Orleans cotton and acclimatised Nankin was so far encouraging, that the plants flourished in a season when cotton of every description was elsewhere comparatively a failure, but in point of colour the results are not yet satisfactory. Further sowings will be tried.

Prickly Comfrey, introduced in 1883, will be a valuable addition to our fodder plants if it succeeds, of which there seems good hope. The hail-storm however has temporarily checked the record.

Withania coagulans and Salt bush (*Atriplex Nummularia*) continued to do well.

The demand for acclimatised seeds continues to increase, and that for imported seeds to decrease, an evolution which is distinctly satisfactory.

6. *Flower culture.*—There is little under this head to note beyond general progress. It was at one time hoped that Hippeastrum bulbs would find a sale with English Florists, but it now appears that Australian custom promises better appreciation.

7. *Arboriculture.*—Of the stock of seedling mangoes raised for gratis distribution, 7,680 were disposed of without effort, and the distribution of all kinds amounted to 12,409. There are 27,660 young trees now in the nursery.

8. *Exotic Plantation.*—The acre of Divi-divi, grown for the purpose of practically testing the commercial value of this tree, continues to flourish. A kharif crop grown between the lines paid for all charges on this acre during the year and left a small profit.

This experiment, while testing the profit from Divi-divi, will secure a double purpose in exemplifying how inexpensively a grove may be formed. Of other trees in this plantation the table gives particulars, which, owing to the hail-storm, must this year be considered inoperative.

9. *Date Plantation.*—This appears to be making fair progress. The plants have done well. The plantation has been fenced in, two wells have been sunk, and a good deal of surface levelling accomplished. It is yet too early to discuss the prospects of the scheme.

10. *Apprentices.*—There are 15 boys on the roll, some of whom are qualified to take outside appointments. Ten applications for malis were received during the year.

11. Mr. Ridley was absent on furlough from May to November, during which time his place was taken by Mr. George Reid. The work of the year may therefore be said to be their joint production, and the results, it is submitted, are extremely creditable to them both, especially in view of the interruption to progress that occurred.

I have the honor to be,

SIR,

Your most obedient servant,

DONALD SMEATON,

Offg. Director.

GOVERNMENT
1885
BOUCH

REPORT

ON THE

HORTICULTURAL GARDENS, LUCKNOW,

FOR THE

YEAR ENDING 31st MARCH, 1885.

I.—FRUIT CULTURE.

1. As the kinds and varieties of fruit trees suited to any given locality or climate is always an important matter in connection with fruit culture, the system now followed for some years of noticing the crops realized from the various kinds under cultivation in the garden, is continued with the view of affording information in this branch of horticulture, where similar conditions as to climate, &c., obtain.

Oranges.

2. Both the Kewla and Sylhet oranges yielded excellent crops this year, and a fairly good one was gathered from the Maltas, while, as in previous years, the Mandarin, Cintra and Nagpur varieties yielded very lightly.

Malta lemon.

3. The Malta lemon yielded a moderate crop only.

Peaches and alubukharas.

4. The peach crop, too, was a light one, but alubukharas yielded well. This is a most excellent fruit, of easy culture, and deserves to be better known and more extensively cultivated than at present appears to be the case.

Loquats and leechees.

5. The loquat crop was a good one, but leechees almost a failure.

Mangoes, pineapples and jacks.

6. The mango crop was fairly good, also pineapples and jacks.

Vines.

7. The country vines of both varieties yielded very little, but the imported kinds gave fairly good results.

Pears.

8. There was a good crop of country pears, but as they were sold to a contractor who gathered them green, the observations noted last year were not repeated.

9. The crops of the current year, I regret to state, are almost *nil* of all kinds, due, I think, to the severe injury done by the terrible hail-storm which visited Lucknow in January last.

(*a*) Improvement of indigenous or acclimatised kinds.

Oranges.

10. One of the plots trenched last year has been planted with young plants of the Kewla orange, and part of the other with what are supposed to be hybrid seedlings. In all, 86 of these seedlings have been planted out during the year. I regret to say the efforts made to propagate them by budding failed.

11. Five plants each of Kewla, Cintra, Sylhet and Malta, worked on seedling stocks of the Malta orange, have been planted out for the purpose of testing the latter as a stock.

12. The orange and kagzie lime trees planted in 1880, on ridges of old mortar and other prepared sites, all fruited this year.

13. The crop of limes was a splendid one, and appeared to be equally good on pure demolition mortar, half that and ordinary soil and ground manured and trenched. This applies to the fruit, but the trees are decidedly largest and most healthy on the line drained by 'khanjar' (fused bricks) while those on the line trenched and manured hold the second place.

14. The same holds good in the case of the oranges, but it may be noted that orange trees have made fairly good growth and borne a good crop of fruit on demolition mortar alone. It must, however, be stated that they are not so vigorous and healthy as their companion plants on manured ground. These remarks apply to the Cintra, Sylhet, and Nagpur varieties. The Malta has made poor progress, and the Kewla was not included in this experiment.

Seville orange.

15. With regard to the Seville orange, Dr. Bonavia has recently pointed out that there are only four trees of it in the garden, and that those hitherto regarded as Seville are a large variety of Malta, the plants of which were procured from Badshah Bagh. This proves that the seedling stocks regarded as Seville are not such, and leaves the experiment of using it as a stock still to be tried.

Peaches.

16. The proposed improvement of the second portion of the peach orchard by trenching was not undertaken, it being thought desirable to allow the young trees on the improved portion to get larger before uprooting the remaining old trees, which still yield a little fruit.

17. The attempt to raise seedlings from selected seeds failed completely ; none of the seeds put down germinated. It is hoped this year's effort will be more successful.

Bers.

18. Though from a different cause equal want of success attended the sowing of selected ber seeds, the seedlings raised, I am informed, all died off after transplanting in the rainy season.

Papaya.

19. The fruit on the large ber trees under cultivation was completely destroyed by the hail-storm, when about half grown ; and the same has to be stated of the papaya fruit on the plants referred to last year as having been raised by sowing the fruit entire.

Carobs.

20. Several of the large carob trees were blown over by the storm in January, there are however, still sufficient left for propagating from—an operation which is being carried out as far as the supply of suitable stocks admits of.

Arabian date-palms.

21. As in preceding years, the fruit on the Arabian date-palms perished during the rains ; this, though discouraging, does not justify the conclusion that success is unattainable. From information gleaned during the year, I think it reasonable to hope that out of the many varieties there are, some will prove suited to our climate. Even in the Persian Gulf, it appears, some kinds can only be preserved and rendered fit for use by undergoing a scalding or semi-boiling process.

22. Hybridising may also aid us. The common wild date (Phœnix-sylvestris) is considerably earlier than its congener, and a hybrid endowed with the good fruiting qualities of the latter and the earliness of the former, is an acquisition to be striven for. Some of the female Arabian dates in the garden have been fertilized with pollen from Phœnix-sylvestris ; and, as it was done before the flower-spathes opened and the fruit having set, affords hope that the operation has been successful.

23. This year 52 trees are in fruit and 62 males flowered.

Cultivation of various orchard fruits· profit and loss.

24. Table showing the expenditure and receipts per acre on the fruit trees grown in the garden.

Name.	Cost per acre.	Value realized per acre.	Profit per acre.	Loss per acre.	Remarks.
	Rs. a. p.	Rs. a. p.	Rs a. p.	Rs. a. p.	
Peaches	47 10 0	53 8 0	5 14 0	...	A poor crop.
Vines	53 12 0	33 8 0	...	20 4 0	A very poor crop.
Alubukharas	52 0 0	59 4 0	7 4 0	...	A moderate crop.
Mangoes and Pineapples ...	32 0 0	112 8 0	80 8 0	...	A good crop.
Leeches	29 0 0	32 0 0	3 0 0	...	Poor crop.
Malta orange	22 0 0	55 0 0	33 0 0	...	Fairly good crop.
Cintra and Sylhet oranges ...	50 0 0	79 8 0	29 8 0	...	Sylhets good, Cintras moderate.
Malta lemon	31 8 0	36 11 0	5 8 0	...	Good crop.
Pummelow	39 8 0	89 12 0	50 4 0	...	A very good crop.

25. I was absent on leave when the grape crop ripened, but the following are Mr. Reid's notes and observations regarding them :—

Grapes.

26. "The grape crop was a fairly good one; the yield of Black Hamburghs being exceed-"ingly fine. This vine has now been in the garden for many years, and although as a grape it, "falls far short of the perfection it attains to in Europe, it is perhaps a trifle larger in size than, "but far superior in flavor to, any of the country varieties grown in Lucknow. Unlike the latter, "it is moreover a sure and heavy cropper, and one that I feel certain would be more widely cultivat-"ed were it only better known.

27. "Most of the following vines, all well known English varieties, fruited in the garden for "the first time during the year. They were imported in 1882; they were all treated similarly, and "the result in each case is noted.. It is too soon, perhaps, to decide on their merits, though it may "safely be predicted that they will not succeed so well in these provinces as they do in England. "Nevertheless all or nearly all of them will, when thoroughly acclimatised, prove superior to the "native kinds commonly cultivated."

(*a*). *Stillwards Sweetwater* (white).—Growth fairly good; 4 small bunches on vine; berries small, not particularly sweet, but free from acidity.

(*b*). *White Frontignan* (white).—Growth poor; 3 small clusters on vine; grapes very small, yellowish in appearance, but of excellent flavor.

(*c*). *Royal Muscadine* (white).—Growth fairly good; crop poor; bunches small; fruit ditto, but of good flavor.

(*d*). *Bowood's Muscat* (white).—Growth vigorous; crop poor; bunches small; berries of fair size, but wanting in flavor.

(*e*). *Foster's Seedling* (white).—Growth vigorous; crop good; fruit and clusters fairly large. Decidedly the best of the white grapes as regards size, but not equal in flavor to *white Frontignan*. Promises well.

(*f*). *Madresfield Court* (black).—Growth vigorous; crop poor, only 2 bunches on vine; berries moderately large, and equal in flavor to Black Hamburgh, an excellent grape.

(*g*). *Mrs. Pince's Black Muscat* (black).—Growth vigorous; crop fairly good; berries of fairly large size and good flavor, but inferior to Madresfield Court, which they resemble in size and color.

(*h*). *Royal Vineyard* (black).—Growth vigorous; fair cropper; berries resemble Black Hamburgh in color and flavor, but are rather inferior in size.

(*i*). *Royal Ascot* (black).—Growth vigorous; crop heavy; fruit, though not of so fine a flavor as Black Hamburgh, exceeds it in size; bunches large; a vine of good promise.

(*j*). *Duke of Buccleugh* (white).—Growth poor; no fruit.

(*k*). *Alicante* (black).—Growth vigorous; crop heavy; bunches and individual berries large. This vine gave promise of giving the best results of all; the fruit, which was still green and hard when the rains set in, burst shortly after and never ripened. It would seem to be a very late variety: the great heat and moisture were evidently too much for it.

(*l*). *Black Frontignan* (black).—Growth poor; no fruit.

28. "In addition to the above there are, of course, other varieties, many of which have been "cultivated in the garden for years; the best of all the older kinds being the Black Hamburgh al-"ready alluded to.

29. "A good country variety (white) has also been recently added to the garden collection. "The plant, though not in vigorous growth, bore one bunch of fairly-sized grapes, rather oval in "shape, and of an excellent flavor, almost equal in this respect to White Frontignan, and much "superior to it in size."

(*b*). INTRODUCTION OF NEW KINDS.

30. One of the English figs named Lee's prolific, imported in 1882, fruited this year: the yield was small, but, Mr. Reid states, was of excellent flavor, most of the other plants imported at the same time are showing fruit this

Imported figs.

season. In order to ensure the preservation of each kind in the garden, duplicates of all have been made and planted out.

31. The kind received from Saháranpur was found inferior to the ordinary Lucknow kind, and has consequently been discarded.

Imported Pineapples.

32. Three of the pineapples imported with the above also fruited, but were not, it appears, equal in size to the country kind which does so well in the garden. The plants have never grown vigorously since their arrival, a fact which accounts for the smallness of the fruit yielded, but with acclimatization it is probable they will improve.

Mangoes.

33. The garden is indebted to the kindness of Daroga Nazir Hussein of Lucknow for the following mangoes :—

Soorka	...	1	Bar Patta	...	1
Rampore Gola	...	2	Nawab-Pasand	...	2
Bombay Bhadania	...	2	Shahabadi-Amín	...	2
Panseera	...	2	Sheerin-Amín	...	6
Bhura	...	2	Bara-Malda	...	4
Kamal	...	8	Fakhira	...	8

34. The three following, which I am informed are excellent varieties, were procured from the Agri-Horticultural Society of Madras :—

Ameer-Gola	...	3
Dil-Pasand	...	3
Romanee	...	3

Peaches.

35. From the Botanical Garden, Saháranpur, 6 plants of a large round peach.

Three plants have been raised from seed sent from Chumba.

(c)—Distribution.

36. Compared with last year, there is a slight increase in the number of fruit trees sent out. The distribution of kinds and number of each is so close on last year's figures that no remarks are called for.

37. The subjoined statement shows the kinds and number of each sent out.

Name.	Sold.	Sold at half price to public Gardens.	Sold at half price to Arboriculture Department.	Distributed gratis.	Total.
Oranges	314	483	...	32	829
Mangoes	1,028	225	178	6	1,437
Malta lemons	21	75	...	...	96
Kagzie limes	91	395	...	...	486
Sour and sweet limes	20	...	...	...	20
Loquats	129	16	...	...	145
Vines	155	...	...	10	165
Leechees	68	39	...	...	107
Peaches	129	48	...	...	177
Pineapples	46	10	...	...	56
Plantains	49	28	...	...	77
Pummelows	45	...	...	...	45
Alubukharas	6	12	...	...	18
Jack fruit	32	70	...	...	102
Ardunia-grandiflora	15	2	...	...	17
Papitas	10	...	...	...	10
Pomegranates	11	...	...	...	11
Rose apples	6	1	...	2	9
Wampee	6	...	...	...	6
Guavas	10	...	...	...	10
Apples	10	...	...	...	10
Phalsa	30	...	...	...	30
Kamrakh	10	...	...	...	10
Figs	1	...	...	3	4
Anona Cherimolia	6	...	...	...	6
Total	2,248	1,404	178	53	3,883

38. The seedling Arabian date-palms planted out in the new plantation are not included in the above.

39. The total receipts for the year by sale of the above-named fruit trees amounts to Rs. 1,075-6-0, or Rs. 62-4-0 more than last year.

40. The cash loss to the garden on the issues at half price amounts to Rs. 239-13-0, and Rs. 17 on those sent out free of charge. These two items added to actual receipts raises the total value of the fruit tree distribution to Rs. 1,332-3-0.

41. Our stocks of the fruit trees, particularly of the orange tribe, were very far from equal to the demand for them ; a matter of much regret, and which was due to want of sufficient space for nursery work. To remedy this, 3 acres 2 roods and 10 poles of land adjoining the garden have been secured and which will be devoted to rearing fruit trees for distribution.

42. For the current year, however, very few orange trees will be available for sending out, as the stocks being raised for budding on to were so injured by the hail-storm, that only a very low percentage of the buds inserted have taken.

II.—Vegetable and Farm-culture.

Hybrid cotton.

43. The cotton seed supposed to have been successfully crossed last year was duly sown in the rains, and germinated readily, and finally resulted in flourishing plants. It was found, however, that there was considerable variety among the plants, only one or two having the desired Nankin color; the others ranging from light Nankin to white. The seed from the best plants has been secured for further trial.

Arabian-Nankin cotton.

44. Very meagre results were obtained from the plot of Arabian-Nankin plants which survived from last year. There was fair growth and show of blossom, but the latter fell off for the most part, and only a handful of mature bolls have been secured. The fibre does not, I think, equal that of the old variety, either in depth of color, length of staple or softness; and as it is not apparently more hardy or better suited to the Indian climate, its introduction seems undesirable.

Vegetable garden.

45. The hail-storm previously alluded to worked sad havoc in the vegetable garden ; some crops, as cauliflowers and beans, were completely destroyed, and all very much injured ; several kinds, however, ultimately recovered sufficiently to be usable and demands for dallies were met.

(*a*). Improvement of indigenous or acclimatised kinds.

46. As in previous years, sowings of several kinds of country vegetables were made for the double purpose of effecting improvement and supplying good seed to meet indents ; the results obtained call for no special notice.

White Belgian cattle carrot.

47. The crop of white Belgian cattle carrot having been considerably checked and injured by the hail, it was not thought worth while ascertaining the outturn, which would have been valueless for purposes of comparison with either previous or future results.

American table field corns.

48. None of the American table corns yet tried have given satisfactory results. The plants flourish well enough, but, as a rule, only one-half of the cobs yield grain, due probably to the pistils being injured by rain. A course of acclimatization may effect improvement, a point which will be tested.

49. The three selected kinds received from Durbhunga yielded fairly well, and some five cobs were secured ; they appear, however, to be field varieties, which are not so delicate as the table corns.

(*b*). Introduction of new kinds.

Prickley comfrey.

50. The Prickley Comfrey plants planted in November, 1883, have succeeded better than I anticipated ; only one plant died, and by the beginning of December there was a good growth of leaves on the survivors, from which 1 maund and 2 seers of fresh succulent leaves were gathered during that month: growth was then checked by the cold, and early in January the plants were cut down to the ground by the hail. A weakly stunted growth subsequently came up and several flower stalks, but not sufficient to admit of cutting.

51. The two old plants of Salt-bush in the vegetable garden have made very good growth, and although they were cut down a good deal by the hail, are at the present time about 5 feet high, and densely branched to the ground. A few plants have been planted in poor un-manured soil, to ascertain whether they will succeed in such land.

Salt-bush (Atriplex nummularia.)

52. A few plants of Withania coagulans have also survived, and are making healthy growth.

Withania coagulans.

53. A plot of Musk-mallow (Hibiscus-Abelmoschus) was put down with a view to ascertain the yield of seed per acre, but the plants and growing pods were destroyed by the hail-storm; seed has, however, been secured for a future effort.

Musk-mallow.

54. The "Queen" onion has this year been a success, the bulbs are very large and mild in flavor. I doubt, however, if it will prove better suited to India than silver-skin, which does so well here.

Onions.

55. After repeated trials, fair success has been obtained with French-beans sown at the end of the rains. The best results were from Mann's Dwarf French, and White Pole beans. Seed of each has been secured for further trial.

Dwarf French and Pole Beans.

56. A very small plot of a species of Chenopodium, called Australian spinach, was tried; but further trial is necessary before its value as a vegetable can be ascertained.

Australian spinach.

(*c*). Distribution.

57. The distribution of acclimatised vegetable seed was much the same as last year, but considerable increase is shown in the case of country vegetable seeds, the demand for which was beyond our resources.

58. The kinds and quantity of each sent out during the year were:—

Cauliflower early	10½ lbs.
Ditto late	5 lbs.
Onion, silver-skin	6¼ lbs.
Lettuce, 2 kinds	4 lbs.
Tomato	1¼ lbs.
Spinach	11 ozs.
Cress	15 ozs.

59. The amount realised by the sale of acclimatised vegetable seeds and 172 packets of country vegetable seeds was Rs. 343-4-0, or Rs. 37-11-6 more than last year.

Four lbs. of Sorghum seed was sent to C. J. Coombs, Esq., Gorakhpur, *gratis*.

60. The demand for imported vegetable seeds was below that of last year, and the amount realised by sale of the same was less by Rs. 229-6-0.

III.—FLOWER CULTURE.

61. The border prepared for roses last year was planted up during the rains with plants of our best blooming kinds; and as the plants have taken well, a good display of bloom is looked for next cold season.

62. A line of the single flowered Hibiscus has been planted to form a back-ground and dividing line between the roses and mangoes.

63. The border opposite this is also sadly in need of renovation, a work which will be taken in hand as soon as opportunity offers. Another border near the Plant-house which had got into a jungly state with creepers, &c., has also been cleared and levelled, and in place of the previous occupants, a line of cupressus-funebris has been planted.

64. A long-felt want has been provided for by the formation of a stock nursery of roses, for the purpose of supplying buds and cuttings both for garden use and to meet indents. The previous system of collecting these from plants scattered all over the garden was most inconvenient, and when labels got mis-placed, mis-

Stock-rose nursery.

takes in identity were easily possible and probably frequently occurred. It is therefore matter for much satisfaction to be able to state that these drawbacks are now done away with.

Hybrid hippeastrums.

65. It would seem shade was wanted for the selected hybrid-amaryllis as since]ait was grown among them, they have flowered much better, and it has been decided to leave them where they are at present. There was a fine display of bloom this year, and among the latest batch of seedlings old enough to flower, several striking novelties appeared. One in particular presents us with quite a new color and is a most distinct break in that respect, a break in the form of the flower was also noted, the novelty in this instance taking the form of a curious and pleasing twist in the points of the petals. A considerable number have been selected and marked down for removal at the proper season to the selected ones.

66. When in England last year, I visited Messrs. Veitche's nurseries, and in reply to my inquiries regarding the hybrid amaryllis supplied to them, was informed that they did not come up to the home standard in strength and substance of flower; their size and colors were appreciated, but, lacking the above-named qualities, they were unsuited to the English climate on the score of being delicate. The same objections were urged by Mr. W. Bull, another London Nurseryman, to whom some of the bulbs were sent a few years ago.

67. There are, however, certain trade reasons which considerably qualify these statements, but at the same time efforts are being made to remedy the defects complained of by cross-breeding with our own and some of the best English kinds which were imported for the purpose last year, and from which hybridised seed has already been obtained.

68. A very favorable account has been received from Australia, to which country some bulbs purchased from the garden were sent by a resident in India.

Acclimatised flower-seeds.

69. As in previous years a considerable area was devoted to growing a number of choice flowering annuals for the purpose of supplying seed, the demand for which is still considerable. Distribution is somewhat below that of last year, the receipts being only Rs. 778-4-0, instead of Rs. 911-5-0, or a decrease of Rs. 133-1-0.

(*a*) Introduction of new kinds.

70. Only three new flowering annuals were secured this year, they are:—

Coreopsis Sp:
Helianthus multiflorus?
Ipomœa phœnicea.

Japan lacquer tree.

71. From a packet of seed received of the Japan lacquer tree (*Rhus vernicifera*), 30 plants have been raised.

72. A plant of *Musa textilis* has also been received.

73. The garden collection of trees and shrubs, &c., has been augmented during the year with the following:—

Trees—
Acacia ferruginea.
„ jacquemontia.
Cedrela-Australis.
Eucalyptus melliodora.
Schinus terebinthifolius.
Ficus comosa.

Shrubs—
Abroma sinuosa.
Medinilla magnifica.
„ amabilis.
Bidens Sp., (Jamaica).
Podocarpus Sp., (Cape).
Habrothamnus elegans.
Solanum jasminoides.
Callistemon lanceolatum.
Gouarria leptostachya.
Erythrina stricta.
Terminalia elegans.
Hibiscus Patonii?
„ splendens.
„ variegata-grandiflora.
Euonymus latifolia aurea variegata.
Mussœnda theifera.

Climbers and creepers—
Antigonon insigne.
Hoya variegata alba.
Epepremnum mirabile.

Palms—
Prichardia pacifica.
Cocos lapidea.
„ botryophora.
Chamœrops melanacantha.

Herbaceous plants—
Gynura aurantica.
Eranthemum albo-marginata.
Dieffenbachia amœnum.
„ majestica.

Echmea puniculigera.
Tillandsia Lindeniana vera.
„ musaica.
„ acaulis zebrina.
Bilbergia vittata.
Curmeria Wallisii.
Pellionia daveauana.
15 kinds of foliage begonias.
3 „ of flowering „
4 new coleus.

Bulbs and tubers—

Achimenes 14 kinds.
Nœgelins 7 „
Caladiums 17 „
Gloxinias 19 „
Crinum Sanderianum.
Eucharis candida.
Govenia andriexi..
Dioscoreas 3 kinds.
Eucodonias 6 „
Tydœas 12 „
Nerines 8 „

Ferns—

Adiantum Leclandii.
„ capillis-veneris Pacotti.
„ aneitense.
„ gracillinum.
„ Lowii.
Cibotium regale.
„ princeps.
Alsophila Rebeccœ.
Davallia Fijiensis.
„ Mooreana.
„ Tyermanni.
Aspidium Germinyi.
Selaginella Brownii.
Antigramma brasiliensis.
Microlepia hirta cristata.
Nephrolepis Duffii.

Orchids—

Cypripedium Hookerii.
Vanda Denisonii.
Oncidium luridum.
Phalœnopsis tetraspis.
Lycaste Skinnerii.
Dendrobium Wardianum.
Lœlia anceps.
Cattleya mossiœ.
Calanthe Veitchii.
„ vestata lutea oculata
„ „ rubra oculata.
Lœlia majalis.
„ purpurata.
C. Gaskelliana.
Chysis aurea.
Lycaste Deppei.
Stanhopea tigrina.
Trichopilia suavis.
Brassavola Digbyana.
Odontoglossum citrosmum.
„ crispum.
„ Peseatorei.
Vanda parviflora.
Cymbidium Mastersii.
„ eburneum.
„ elegans.
Cœlogyne barbata.
„ sp : three.
Pleione praecox Wallichiana.
„ maculata.
Dendrobium longicorne.
„ chrysanthum.
„ moschatum.
„ transparens.
„ ochreatum.
„ heterocarpum.
„ fuscatum.

(*b*) Distribution.

74. In appendix IV details of the distribution of seeds and plants, &c., for the year are given, and from which it will be seen that the totals approach those of the last year very closely.

75. The approximate value of the plants and cuttings distributed gratis is Rs. 328-2-0, which, added to the cash loss on fruit tress similarly distributed, represents a total cash loss to the garden receipts of Rs. 584-15-0.

IV.—ARBORICULTURE.

(*a*) Introduction of new kinds.

76. The only arboricultural work done in the garden this year has been the rearing of a stock of Eucalyptus-citriodora seedlings, for planting out in the land taken up for it and the Arabian Date-palm, details of which will be found under date plantation.

(*b*) Arboricultural nursery.

77. The rearing of a large stock of seedling mangoes for free distribution continues to form the chief work in the arboricultural nursery. There was not, however, a very great demand for them last year, as only some 7,680 were disposed of altogether. This could, no doubt, be altered by taking steps to let it be more generally and widely known that the trees were available, a step which this year's limited stock did not call for.

78. By cropping the portion of the nursery not planted with trees, the receipts have been nearly doubled this year.

(*c*) Exotic Plantation.

79. The acre of Divi-divi has made good progress during the year, the plants being strong enough, it is thought to do without water during the coming hot weather. The experiment of growing pumpkins in the *thaonlas* in the hot weather was not successful, but a good kharif crop of urd was gathered from the ground,

Divi-divi.

giving a profit of Rs. 16-3-0 on the crop, and a final profit of Rs. 2-0-0 after deducting cost of watering, rent of land, and all charges incurred in connection with the plot for the year. The advantage of this with regard to rearing this and trees of a similar kind requires no comment.

Imported carobs.

80. A few of the seedling carobs raised from seed imported form Cyprus, have been grafted on to seedling stocks raised form garden seed. Sixteen of these grafts have been planted out on the side of the main road in the nursery, near the entrance.

81. The condition of nearly all of the exotic trees previously planted out is decidedly worse than last year, chiefly owing to the severe injury done by the hail-storm in January.

82. The two species of Eucalyptus (*rostrata* and *resinifera*) and Pterocarpus marsupium have made the best growth of all, but several of the Rain-trees (*Pithecolobium saman*) have done very well also.

83. Rhus Thunbergii is, I consider, a failure; the 13 trees alive have been planted nearly six years and none of them are over 3 feet high yet, a fact which sufficiently proves it utterly unsuited for arboricultural purposes.

84. Details of the condition of the several exotic trees are given below:—

	Number alive last year.	Number alive this year.	Remarks.
Acronychia Baueri	7	7	Tops dead nearly to ground.
Broussonetia papyrifera	12	12	Made fair growth
Cordia ferruginea (Mexican ebony) ...	4	4	Little growth, tops killed.
Acer negundo	4	3	One dead, no progress with rest.
Maclura aurantiaca (osage orange) ...	4	4	Healthy.
Swietenia mahogani (mahogany)	15	12	Three dead, tops of others killed.
Owenia cerasifera (sweet plum)	4	4	Little progress.
Rhus Thunbergii	13	13	Scarcely any progress.
Pterocarpus marsupium	4	4	Doing well.
Antidesma Dallachiana	3	3	Little progress.
Eucalyptus resinifera	11	11	Doing well.
„ rostrata	33	32	One dead to ground, rest doing well.
Pithecolobium saman (rain tree)	27	26	One dead, tops of most considerably injured.
Arabian Date-palms	23	23	Doing well.
Brachychiton populneum	4	4	Little progress.
Garcinia Roxburghii	6	6	Do. do.
Catalpa bignonioides var: Speciosa ...	4	4	Do. do.

(*d*)—Distribution.

85. In the subjoined statement the number of trees raised and distributed during the year, and the number of each kind now in stock is shown. The number of all kinds sent out is 12,409 while 15,930 have been raised. A number of several kinds which could not be disposed of and which had grown too large to transplant were cut down and the ground they occupied made available for young stock.

1 Name of plant.	2 Total in nursery on 31st March, 1884.	3 Distributed during 1884-85.	4 Died and cut down during 1884-85.	5 Balance on hand on 31st March, 1885.	6 Raised during 1884-85.	7 Total in nursery on 31st March, 1885.
Amb	16,000	7,689	2,120	6,200	10,000	16,200
Ambili	2,930	334	1,296	1,300	1,200	2,500
Mohwa	226	226	...	...	100	100
Gular	182	182	...	...	600	600
Kathal	190	190	...	...	810	810
Bahera	598	136	406	56	...	56
Eucalyptus	22	10	...	12	...	12
Jaman	2,707	1,697	280	730	500	1,230
Pakar	1,262	435	77	750	200	950
Peepul	1,575	446	379	750	1,000	1,750
Gosum	30	...	...	30	...	30
Carob	100	62	38	...	20	20
Bargad	575	305	151	119	800	919
Bel	1,050	220	30	800	200	1,000
Khirni	170	170	...	...	...	...
Aonla	695	63	602	30	...	30
Knitha	1,211	114	229	868	...	868
Divi-divi	300	139	71	90	...	90
Shahtoot	...	...	...	...	500	500
Total ...	29,823	12,409	5,679	11,735	15,930	27,665

86. The distribution of seeds was as follows :—

To the Collector of Moradabad :—

4 Maunds of Inga dulcis seed.

To the Magistrate of Basti :—

2 lbs. Inga seed.

Sold to several persons :—

22 lbs. Inga seed.

87. The estimated expenditure on the arboricultural nursery for the year was Rs. 800, of which Rs. 681-7-6 only were spent, leaving a surplus of Rs. 118-8-6.

88. The receipts for the year amounted to Rs. 140-3-0, which sum was paid to the District Board.

89. The estimated expenditure for the exotic plantation was Rs. 100, of which Rs. 89-13-0 were spent.

90. The receipts for the same were Rs. 78-12-3, which shows the net cost of this institution to be Rs. 11-0-9.

91. Details of expenditure and receipts for the two places are given in appendices II and III.

Date Plantation.

92. The formation of a plantation of Arabian date-palms and Eucalyptus-citriodora, having been sanctioned by Government in April last (1884), the selection of land for the purpose was at once commenced. The choice fell upon a block of land adjoining the Wingfield Park known as "Kerbala." The site was its only recommendation, as the soil is extremely poor and sandy and the general surface very uneven. It was made over in August, and a portion of the ground was at once prepared for planting out as many seedling dates as were ready. 452 were put down out of which only 8 have died leaving 444 alive at the end of the year. The plants have done well for the time they have been planted and afford every hope of succeeding.

93. I regret having to record complete failure with the plants of Eucalyptus-citriodora put down, as well as of the stock being raised in the Horticultural Garden. A new stock is, however, being got up, part of which will be planted out before the rains, in order to get them somewhat established before their enemy, excessive moisture, becomes too abundant.

94. Two wells have been made at a cost of Rs. 171-8-6 for supplying water for the plants till they get established.

95. An aloe fence has been made on two sides of the ground, and the same is required on at least one of the other sides.

96. A good deal of surface levelling has been done, but a portion still remains to be taken in hand.

97. The area of land taken up is 14 acres 2 roods 21 poles, and is held on a yearly rent of Rs. 23-3-0 from the Nazúl Department.

98. The estimated expenditure was Rs. 490, of which Rs. 396-7-3 were spent, leaving a surplus saving of Rs. 93-8-9.

V.—FINANCIAL RESULTS.

99. The total estimated receipts for 1884-85 amounted to Rs. 10,000-0-0, and the total actual receipts were Rs. 9,977-13-8, or Rs 22-2-4 less than the estimate.

100. The total estimated expenditure was Rs. 14,000 and the actual total expenditure amounted to Rs. 13,216-0-11, or Rs. 783-15-1 less than the estimate. The amount drawn by Mr. Ridley, in England, when on furlough, is not included in the amount shown as total expenditure.

Details of increase and decrease over Budget-estimate.

101. There was no difference in the interest on Government Notes.

102. The amount from sale of garden produce as detailed in appendix No. I was Rs. 9,055-12-9, or Rs. 56-3-3 less than the estimate, and Rs. 643-7-3 less than last year's receipts from the same source.

103. The total receipts from all sources were less than those of last year by Rs. 841-15-9, due to less receipts from sale of imported seeds, cut flowers, vegetables and fruit.

Accounts with seedsmen.

104. At the end of the year there was a balance with Landreth and Sons in favor of the garden, of 26 dollars 5 cents. The account with Sutton and Sons was even.

Subscribers.

105. There was an increase of two in the number of first class subscribers during the year. The number of each class was as below :—

First class	15
Second class	16

Apprentice boys.

106. The oldest apprentice boy, who was transferred to the Wingfield Park last year, was sent to Nagpur in December last, as head mali of the Public Garden there, on a salary of Rs. 15 per month. His place in the Wingfield Park has been filled by one of the most advanced of the other boys from the Horticultural Garden. The vacancy there not having been filled yet, leaves the number of boys now entertained at 15.

107. Several of the oldest boys are, I think, sufficiently competent to manage small gardens, but as the wages for such appointments are small, they prefer to remain in the garden longer to qualify themselves for better paid posts.

108. During the year 10 applications for malis were received.

Flower show.

109. Owing to the almost general destruction of garden produce by the hail-storm, it was decided not to be worth while attempting a flower show, consequently none was held this year.

Season.

110. Up to January the general condition of the garden was very satisfactory, having greatly improved with a favorable monsoon. All this progress was, however, utterly destroyed by the terrible hail-storm of the 10th of January, which did inestimable damage to the garden generally, the effects of which will be felt for years, and very particularly in the coming one. The grape, mango, and peach crops are almost *nil*, owing to the injury done to the trees by the hail; the orange crop is much below average, and to these have to be added heavy losses in young stocks of plants of nearly all kinds. About one-half of the top growth of the mango and orange trees has been killed from one to three feet down, and now that things are in leaf, a large percentage of dead growth is conspicuous on most of the trees and shrubs in the garden.

111. Mr. George Reid officiated as Superintendent of the Gardens from May to November, during my absence on leave. I consider he deserves great credit for his management, and I have much pleasure in stating that the condition of the garden was most satisfactory when made over to me on my return.

Seed received.

112. The following seeds were received during the year :—

From the Superintendent, Botanical Garden, Calcutta :—

Gynocardia odorata.
Rhododendron arborium.
3 lbs. Swietenia mahogani (Mahogany.)
Rhus vernicifera (Japanese lacquer).
13 Kinds of Palms.

From Dr. Bonavia, Etáwah :—

China guava.
Sylhet orange.
Chenopodium Sp. (Australian spinach).
Seeds of a round lime.

From the Superintendent, Botanical Garden, Saháranpur :—

Maclura-aurantiaca (Osage orange).
2 lbs. Mustard seed.
Cupressus sempervirens.
Do. funebris.
Do. torulosa.
Pinus longifolia.
Ipomœa phœnicea.
Nelumbium speciosum.
Chamœrops Fortunei.

From the Superintendent, Botanical Garden, Poona :—

Acacia ferruginea.
Do Jacquemontia.
Caryota urens.

From Mr. G. Bartlett, Calcutta :—

Fredericka Guillaume.

From Mr. C. Maries, Durbhunga :—

Selected maize, 3 kinds.
Cauliflower seed.

From the Superintendent, Government Garden, Bangalore :—

Cryptomeria Japonica.
Spathodea campanulata.

From the Queensland Acclimatization Society :—

Ptychosperma Alexandræ.
Eucalyptus citriodora.

From Major Pitcher :—

Prickley pear from Malta.
Schinus molle, Pepper tree, Gibraltar.
A species of gourd from Gibraltar.

From Mr. I. Beck, Chumba :—

Cauliflower seed.
Peach seed.

From Mr. E. Benary, Erfurt :—

A collection of 32 kinds of palm seeds. } by purchase.
Do. of balsams and zinnias. }

From Messrs. Vilmorin Audrieux and Co., Paris :—

12 kinds of palm seeds (by purchase).

From Messrs. Platz and Co., Erfurt :—

26 kinds of palm seeds (by purchase).

Plants.

113. The following trees and plants were received during the year :—

From the Superintendent, Botanical Garden, Saháranpur :—

30 Plants of Osage orange (maclura aurantiaca).
4 Cedrela Australis.
6 Eucalyptus melliodora.
6 Schinus terebinthifolius.
Ficus macrophylla (Australia).
Bidens sp. (Jamaica).
Podocarpus sp. (Cape).
Habrothamnus elegans.
Solanum jasminoides.
Callistemon lanceolatum.
Gouarria leptostachya.
Musa textilis.
Euonymus latifolia aurea variegata.
Gleichenia linearis.
50 Calamus Roxburghii.
50 Cupressus sempervirens var.
6 Ladak plum trees.
6 Large round peach trees.
58 Caladium bulbs of kinds.

From the Superintendent, Botanical Garden, Poona :—

Six Alponso mango plants.

From Daroga Nazir Husain, Lucknow :—

12 kinds of mangoes, numbering 35 plants.

From Mr. A. O. Hume, Simla :—

25 Foliage begonias of kinds.
6 Flowering begonias
6 Gloxinias.
100 Plants of choice geraniums.

From Dr. Bonavia, Etáwah :—

A lot of Amaryllis belladona.
2 Plants of China guava.
4 Indigenous apple trees.

From the Agri-Horticultural Society of Madras :—

3 Plants of each of three kinds of mangoes (by purchase).

From the Agri-Horticultural Society of India, Calcutta :—

21 Begonias of kinds.
Collection of ornamental and flowering plants numbering 27 (by purchase).

From Mr. R. Nicholson, Mirzapur : —

Tubers of a species of dioscorea from hills in the Central Provinces.

From Mr. Gustave Mann, Conservator of Forests, Assam :—

A fine collection of orchids, comprising 30 kinds.

From Mr. McClay, Lucknow :—

A lot of orchids from Andamans.

From Messrs. Hooper and Co., London :—

2 Kinds of Tydæas.
2 Ditto of Achimines.
6 Ditto of Nœgelias.
} (by purchase).

From Babu S. P. Chatterjee, Calcutta :—

5 Kinds of orchids
14 Ornamental and rare plants.
} (by purchase).

From Mr. W. Bull, London :—

A wardian case of new and rare plants and orchids numbering 60 plants. } (by purchase).
Also 10 new and rare plants comprising ferns, bulbs, foliage plants and shrubs. } presented.
Also a collecti n of achimines, caladiums, gloxinias, &c., numbering 70 varieties. } (by purchase).

Seeds sent out *gratis*.

114. Besides the seeds mentioned in vegetable and arboriculture sections, the following were sent out *gratis* :—

To J. B Fuller, Esq., Director of Agriculture, Nagpur : —

½ oz. Eucalyptus citriodora.

To Superintendent, Botanical Garden, Saháranpur :—

2 ozs. Acacia nilotica.
1 packet Eucalyptus citriodora.

To Superintendent, Horticultural Garden, Lahore :—

2 ozs. Acacia nilotica.

To Superintendent, Horticultural Garden, Nagpur :—

2 ozs. Acacia nilotica.

To R. Nicholson Esq., Mirzapur :—

22 packets of flower seeds.

To Messrs. William Brothers, Henaratogoda, Ceylon :—

2 lbs. Gynocardia odorata.

To Superintendent, Botanical Garden, Calcutta :—

A collection of 48 kinds of flowering annuals.
A packet of Eucalyptus citriodora.
A quantity of fern spores.

To Mr. C. Maries of Durbhungah :—

6 Packets tree seeds.

To G. W. Bartlett, Esq., Calcutta :—

A collection of 56 packets of flowering annuals.

M. RIDLEY,

Superintendent, Horticultural Gardens, Lucknow.

APPENDIX I.

Statement showing the receipts and expenditure of the Lucknow Horticultural Garden during the year ending 31st March, 1885.

Receipts.	Actuals of 1883-84.	Sanctioned etimate for 1884-85.	Actuals of 1884-85.	Expenditure.	Actuals of 1883 84.	Sanctioned estimate for 1884-85.	Actuals of 1884-85.
	Rs. a. p.	Rs. a. p.	Rs. a. p.		Rs a. p.	Rs. a p.	Rs. a. p.
Interest on Government Notes	107 11 8	108 0 0	107 11 8	Superintendent	3,000 0 0	3,000 0 0	2,256 15 10
Rent of land	451 13 9	300 0 0	358 5 3	Writers and others...	360 0 0	432 0 0	426 0 0
Subscription	564 0 0	480 0 0	456 0 0				
	1,123 9 5	888 0 0	922 0 11	Gardeners and Assistants	1,925 12 3	1,992 0 0	1,957 1 9
SALES.				School for Native Gardeners	723 9 0	790 0 0	760 6 6
On cash payment.				Variable labor	2,172 14 6	1,950 0 0	2,059 8 6
Fruit Trees	1,007 13 0	...	1,056 8 0	Purchase of seeds and plants	2,421 12 0	2,700 0 0	2,528 2 4
Vegetable and flower seeds (Acclimatised) ...	1,185 13 6	...	1,105 8 0				
Ditto ditto (Imported)	1,354 7 0	...	1,220 9 0	Ditto of live-stock	398 0 0	100 0 0	300 0 0
Ornamental plants and trees	2,637 7 0	...	2,877 6 0				
Cut flowers	244 15 3	...	157 15 6	Ditto of manure	15 13 0	100 0 0	16 9 0
Vegetables	202 12 0	...	131 13 9				
Fruit	1,330 2 3	...	1,145 9 6	Service stamps	117 0 0	136 0 0	120 0 0
Wood and grass	160 8 0	...	120 4 0				
Miscellaneous	1,418 0 0	...	1,171 2 0	Miscellaneous	2,430 13 0	2,600 0 0	2,507 3 6
Total, cash payment on sales ...	9,541 14 0	9 112 0 0	8,986 11 9	Maintenance of premises	158 4 5	200 0 0	284 2 2
Total, receipts in cash ...	10,665 7 5	10,000 0 0	9,908 12 8	Travelling allowance	169 14 0	...	...
Credit Accounts.							
Fruit trees	5 5 0	...	18 14 0				
Acclimatised seeds	31 6 0	...	17 0 0				
Imported do.	115 0 0	...	19 8 0				
Ornamental plants	...	...					
Miscellaneous	6 1 0	...	13 11 0				
Total, receipts in credit ...	157 6 0	...	69 1 0				
Total, receipts in cash and credit ...	10,822 13 5	10,000 0 0	9,977 13 8	Total ...	13,893 12 2	14,000 0 0	13,216 0 10

M. RIDLEY,

Superintendent, Horticultural Gardens, Lucknow.

APPENDIX II.

Statement showing the receipts and expenditure of the Arboricultural Nursery, Lucknow, during the year ending 31st March, 1885.

Receipts.	Amount.	Expenditure.	Amount.
	Rs. a. p.		Rs. a. p.
Miscellaneous	140 3 0	Purchase of seeds and plants	3 7 6
		Pay of gardeners	229 6 0
		Cost of watering	40 10 0
		Miscellaneous	408 0 6
Total ...	140 3 0	Total ...	681 7 6

M. RIDLEY,

Superintendent, Horticultural Gardens, Lucknow.

APPENDIX III.

Statement showing the receipts and expenditure of the Exotic Plantation, Lucknow, during the year ending 31st March, 1885.

Receipts.	Amount.	Expenditure.	Amount.
	Rs. a. p.		Rs. a. p.
Sale of fruit	36 0 0	Labor	58 0 0
Miscellaneous	42 12 3	Contingencies	31 13 0
Total ...	78 12 3	Total ...	89 13 0

M. RIDLEY,

Superintendent, Horticultural Gardens, Lucknow.

APPENDIX IV.

Abstract of distribution list for 1884-85.

Number.	Name of Department, &c., supplied.	Plants.									Seeds.							
		Fruit.			*Ornamental and timber trees.*		*Ornamental plants and shrubs.*									*Total.*		
		Plants	Cuttings.	Strawberries.	Plants.	Cuttings.	Plants.	Cuttings.	Bulbs and tubers.	Total.	Vegetable.	Flower,	Fruit.	Trees and shrubs.	Miscellaneous.	Number of packets.	Weight of seeds.	
		No.	No.	No.	No.	No.	No.	No.	No.	No.							lbs.	ozs.
1	Arboriculture	178	...	...	...	...	...	...	...	178	...	...	...	2	...	2	322	0
2	General Public	2,248	...	...	244	...	5,424	303	3,508	11,727	2,556	3,752	4	139	6	6,457	579	2
3	Government and Public Gardens in India	777	...	...	77	...	2,528	93	318	3,793	444	1,210	...	40	3	1,697	230	0
4	Ditto and private gardens in other countries ..	...	...	...	...	...	...	...	..	...	...	...	...	1	...	1	2	0
5	Jail	680	100	...	16	...	47	...	...	843	126	...	...	...	...	126	29	8
	Total ...	3,883	100	...	337	...	7,999	396	3,826	16,541	3,126	4,962	4	182	9	8,283	1,162	10

M. RIDLEY,

Superintendent, Horticultural Gardens, Lucknow.

ORDERS OF GOVERNMENT.

No. $\frac{1443}{L-434}$ OF 1885.

FROM

THE CHIEF SECRETARY TO GOVERNMENT,

N.-W. PROVINCES AND OUDH,

TO

THE DIRECTOR OF AGRICULTURE AND COMMERCE,

N.-W. PROVINCES AND OUDH.

DATED NAINI TAL, THE 19TH AUGUST, 1885.

SIR,

REVENUE DEPARTMENT.

I AM directed to acknowledge the receipt of your No. 967A of 20th June, 1885, with which you submit the annual report on the Horticultural Gardens, Lucknow, for the year ending 31st March, 1885.

2. Very extensive damage was caused to nearly all departments of the garden by the disastrous hailstorm which visited Lucknow in January last. The effects of this calamity will affect the outturn of the gardens even more in the current and following years than it did in the year under report. Making due allowance for the effect of this unavoidable calamity, the results of the year's working were satisfactory. The various operations and experiments in flower, fruit, and vegetable culture are detailed in Mr. Ridley's report, and summarised in your letter. The experimental cultivation of new varieties of useful and ornamental plants, the growth and distribution of those the success of which has been established, the acclimatisation of exotic species, and the supply of seeds and trees for public purposes and to private individuals, are the useful ends which the gardens continue to serve.

3. The total receipts were Rs. 9,978, and the expenditure amounted to Rs. 13,216; so that the cost to Government was Rs. 3,238 against Rs. 3,071 in the preceding year. These figures do not, however, take account of plants and cuttings to the value of Rs. 585 distributed free or at reduced prices. The gardens were under the charge of Mr. Ridley for part of the year, and, during his absence on leave, of Mr. G. Reid. The management was highly creditable to both those gentlemen.

I have the honor to be,

SIR,

Your most obedient servant,

J. R. REID,

Chief Secy. to Govt., N.-W. P. and Oudh.